

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)								DATE February 1999		
BUDGET ACTIVITY 4 - Demonstration and Validation				PE NUMBER AND TITLE 0604327F Hardened Target Munitions				PROJECT 4641		
COST (\$ In Thousands)	FY 1998 Actual	FY 1999 Estimate	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	Cost to Complete	Total Cost
4641 (U) Hard and Deeply Buried Target Defeat System (HDBTDS)	4,083	2,549	4,910	0	0	0	0	0	0	11,539
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0	0

(U) A. Mission Description

The Hard and Deeply Buried Target Defeat System (HDBTDS) program is an effort designed to hold at risk those highest priority assets essential to the enemy's war fighting ability, which are heavily defended and protectively hardened. Hardening techniques include construction of facilities, many of which are deep underground with multiple layers of reinforced concrete, rock rubble, and/or earth overburden. Other hardened targets include operations within caves, tunnels, and mountains built using rapidly improving construction equipment exported by allies and adversaries on a large scale. (Examples include enemy command and control facilities, air defense facilities, facilities for the production, storage, and deployment of weapons including weapons of mass destruction, surface to surface missile launch sites, aircraft storage sites, artillery sites.) Potential solutions include (but are not limited to) Special Forces, conventional short or long range ballistic missiles (land or sea launched), cruise missiles, direct attack munitions, and standoff weapons.

An Analysis of Alternatives (AOA) is being conducted to evaluate the weapon concepts to determine the most promising concepts to move forward into a follow-on program. The potential weapon concepts have been narrowed down from 65 to 10, which are being evaluated in a campaign analysis. The results of the AOA will be presented to the Defense Acquisition Board at a Milestone I in 4th Quarter FY 1999.

(U) FY 1998 (\$ in Thousands):

- (U) \$2,002 Conducted Analysis of Alternatives (AOA) study effort.
- (U) \$2,081 Stood up System Program Offices (SPOs).
- (U) \$4,083 Total

(U) FY 1999 (\$ in Thousands):

- (U) \$1,083 Complete the Phase 0 AOA study effort. The Congressional Appropriations Conference Committee directed that \$3.0M shall be available only for completion of a joint AOA (with the Navy) and planning efforts associated with establishing a joint hard and deeply buried target defeat program.
- (U) \$1,397 Continue SPO activities (acquisition support and documentation) to support planning efforts.
- (U) \$69 Identified as a source for SBIR
- (U) \$2,549 Total

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(U) FY 2000 (\$ in Thousands):

- (U) \$1,870 Initiate Phase I activities. Preliminary AOA results have identified cost effective alternatives involving modifications to existing systems. The modifications will be explored, as well as other solutions that surface as a result of the AOA.
- (U) \$1,580 Continue SPO activities (acquisition support to Phase I activities). Efforts will consist of follow-on analysis and surveys necessary to transition the potential solutions to development programs.
- (U) \$1,460 Systems Engineering and Technical Analysis (SETA) will include design analysis and prototype evaluation of upgrades to legacy weapons.
- (U) \$4,910 Total

(U) **B. Budget Activity Justification:**

This program is in budget activity 4 - Demonstration and Validation, because the program will develop a Hard Target Munitions capability to precisely hit and destroy hard and deeply buried targets not currently held at risk.

(U) **C. Program Change Summary (\$ in Thousands)**

	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>Total Cost</u>
(U) Previous President's Budget (FY 1999)	4,716	9,803	0	0	4,981
(U) Appropriated Value	4,981	3,000			
(U) Adjustments to Appropriated Value					
a. Cong Reductions	- 163	- 451			
b. SBIR	- 103				
c. Omnibus Payback and Air Force Bill	-32				
d. Below Threshold Reprogramming	-600				
(U) Adjustments to Budget Years Since FY 1999 PB			4,910	0	
(U) Current Budget Submit /PB FY 2000	4,083	2,549	4,910	0	11,539

NOTE: \$69 is identified in FY 1999 as a source for SBIR.

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<p>(U) Significant Program Changes:</p> <p style="margin-left: 40px;">Funding: FY 1999 funding was reduced from \$9.8M to \$3.0M to the Air Force and from \$9.8M to \$3.0M to the Navy. This reduction eliminated ongoing parameter analysis and trade study efforts. All Air Force and Navy funding has been combined to complete the AOA analysis and conduct a Milestone I DAB. FY 2000 funding was added to initiate Phase I leading to a decision to fulfill the requirement either from ongoing systems or a new start.</p> <p style="margin-left: 40px;">Schedule: The AOA was extended to evaluate additional concepts and conduct a survivability analysis. The AOA is estimated to be completed in 4Q FY 1999.</p> <p>(U) D. <u>Other Program Funding Summary (\$ in Thousands):</u> Not Applicable</p> <p>(U) E. <u>Acquisition Strategy:</u></p> <p style="margin-left: 40px;">The contract to perform the Phase 0 AOA work is a modification to an existing Systems Engineering and Technical Assistance (SETA) support contract to the Ogden Air Logistics Center (OO-ALC) ICBM System Program Office (SPO) - a Cost Plus Award Fee (CPAF) contract filled by TRW (Colorado Springs). Hardened Target Munitions Program alternatives are being fully evaluated in the AOA. At the conclusion of the AOA, the Air Force will have the necessary information to support a Milestone I decision. Weapon systems providing required capability will be identified and considered at that time.</p> <p>(U) F. <u>Schedule Profile</u></p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th colspan="4" style="text-align: center;"><u>FY 1998</u></th> <th colspan="4" style="text-align: center;"><u>FY 1999</u></th> <th colspan="4" style="text-align: center;"><u>FY 2000</u></th> <th colspan="4" style="text-align: center;"><u>FY 2001</u></th> </tr> <tr> <th></th> <th style="text-align: center;">1</th> <th style="text-align: center;">2</th> <th style="text-align: center;">3</th> <th style="text-align: center;">4</th> <th style="text-align: center;">1</th> <th style="text-align: center;">2</th> <th style="text-align: center;">3</th> <th style="text-align: center;">4</th> <th style="text-align: center;">1</th> <th style="text-align: center;">2</th> <th style="text-align: center;">3</th> <th style="text-align: center;">4</th> <th style="text-align: center;">1</th> <th style="text-align: center;">2</th> <th style="text-align: center;">3</th> <th style="text-align: center;">4</th> </tr> </thead> <tbody> <tr> <td>(U) Commence SPO Standup</td> <td style="text-align: center;">*</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>(U) Complete AOA</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;">X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>(U) Milestone I</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;">X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>(U) Conduct System Requirements Review</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;">X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>(U) Start Preliminary Design</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;">X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>(U) Conduct Preliminary Design Review</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;">X</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p style="margin-left: 40px;">* = Completed event X = Planned event</p>													<u>FY 1998</u>				<u>FY 1999</u>				<u>FY 2000</u>				<u>FY 2001</u>					1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	(U) Commence SPO Standup	*																(U) Complete AOA								X									(U) Milestone I								X									(U) Conduct System Requirements Review									X								(U) Start Preliminary Design									X								(U) Conduct Preliminary Design Review													X			
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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)									DATE February 1999		
BUDGET ACTIVITY 4 - Demonstration and Validation					PE NUMBER AND TITLE 0604327F Hardened Target Munitions					PROJECT 4641	
(U) A. <u>Project Cost Breakdown (\$ in Thousands)</u>											
					<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>			
(U) AOA					2,002	1,083	0	0			
(U) SPO(s) Standup and Continued Support					2,081	1,397	1,580	0			
(U) SETA Contractors							1,460	0			
(U) Phase I Contract							1,870	0			
(U) Identified as a source for SBIR						69					
(U) Total					4,083	2,549	4,910	0			
(U) B. <u>Budget Acquisition History and Planning Information (\$ in Thousands)</u>											
Performing Organizations:											
Contractor or Government Performing Activity	Contract Method/Type or Funding Vehicle	Award or Obligation Date	Performing Activity EAC	Project Office EAC	Total Prior to FY 1998	Budget FY 1998	Budget FY 1999	Budget FY 2000	Budget FY 2001	Budget to Complete	Total Program
Identified as a source for SBIR							69				69
<u>Product Development Organizations</u>											
TRW (CO Spgs)	SS/CPAF	Oct 96	8,794*	8,794*	3,800*	2,002	1,083	0	0	0	6,885
SETA Contractors	TBD	Oct 99	1,460	1,460	0	0	0	1,460	0	0	1,460
Phase I Contract TBD	TBD	Oct 99	1,870	1,870	0	0	0	1,870	0	0	1,870
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Contractor or Government Performing Activity	Contract Method/Type or Funding Vehicle	Award or Obligation Date	Performing Activity EAC	Project Office EAC	Total Prior to FY 1998	Budget FY 1998	Budget FY 1999	Budget FY 2000	Budget FY 2001	Budget to Complete	Total Program
NOTE: *This figure includes FY96/FY97 funds from PE 0603311F.											
Support and Management Organizations											
ASC/YG (Eglin)	MIPR	Oct 97	N/A	N/A	0	1,118	990	1,140	0	0	3,248
SMC/TE (Kirtland)	MIPR	Oct 97	N/A	N/A	0	943	172	0	0	0	1,115
AFMC/OAS Kirtland AFB	MIPR	Dec 97	N/A	N/A	0	20	10	0	0	0	30
TRW (McLean, VA)	SS/CPAF	Dec 98	N/A	N/A	0	0	225	440	0	0	665
Test and Evaluation Organizations : None											
Government Furnished Property: None											
Subtotal Product Development					0	2,002	1,083	3,330	0	0	6,415
Subtotal Support and Management					0	2,081	1,397	1,580	0	0	5,058
Subtotal Test and Evaluation					0	0	0	0	0	0	0
Identified as a source for SBIR							69				
Total Project					0	4,083	2,549	4,910	0	0	11,539
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